Local Elected Official Toolkit

Pension Funding and Retiree Health Benefits Funding

March 2011

CalPERS

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PENSION FUNDING & RETIREE HEALTH BENEFITS FUNDING

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ABOUT CalPERS

OVERVIEW

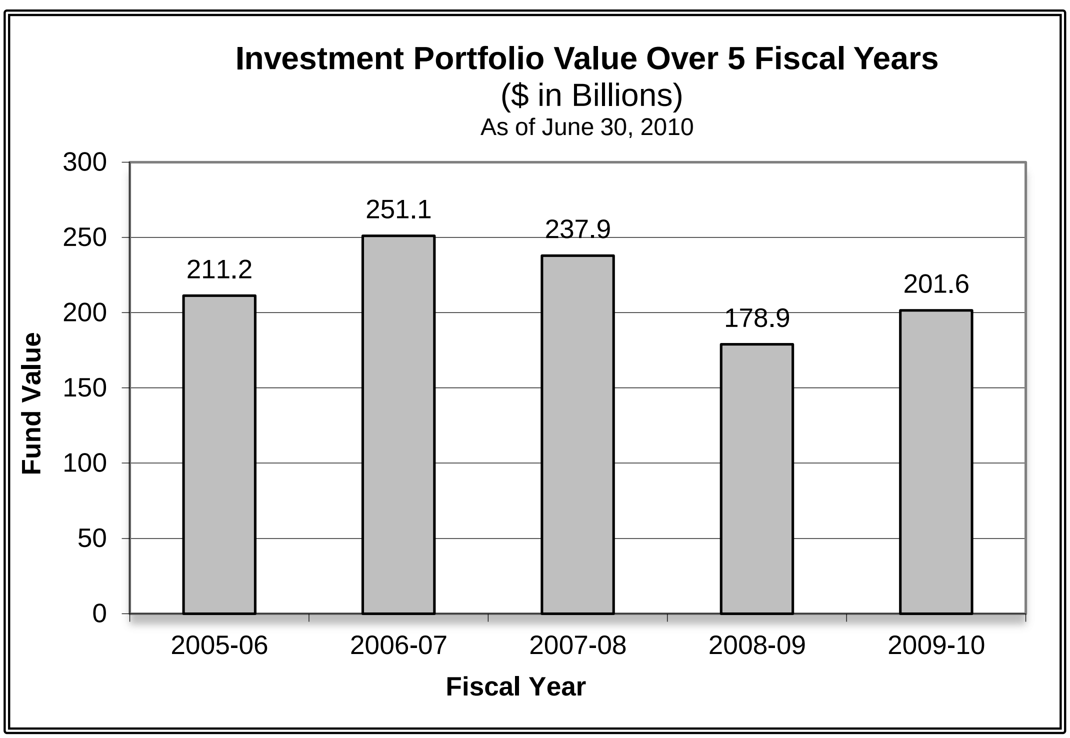
The California Public Employees' Retirement System (CalPERS) is the nation's largest state public pension fund with assets of approximately $226 billion as of December 31, 2010. Headquartered in Sacramento, California, CalPERS administers retirement and health benefits for more than 1.6 million State and local public employees, retirees and their families. CalPERS serves the State of California and more than 3,000 contracting public agencies and school districts.

CalPERS MISSION

CalPERS mission is to advance the financial and health security for all who participate in the System. CalPERS fulfills this mission by creating and maintaining an environment that produces responsiveness to all those CalPERS serves.

BOARD OF ADMINISTRATION

CalPERS is administered by a 13-member Board of Administration that is representative of our constituents. The Board consists of six member-elected, three appointed, and four ex officio members. The Board has a fiduciary responsibility to maximize investment returns and minimize employer contributions. The California Constitution was amended in 1992 to provide the CalPERS Board with exclusive authority for the System's administration and investment of assets.



In addition to the CalPERS defined benefit plan (CalPERS DB Plan) and health program, we also administer the CalPERS Supplemental Income 457 Plan, the Supplemental Contributions Program, the State Peace Officers' and Firefighters' Supplemental Plan, the California Employers' Retiree Benefit Trust, the CalPERS Long-Term Care Program, the Judges' Retirement System, the Judges' Retirement System II, and the Legislators' Retirement System. However, this toolkit focuses on the funding of the CalPERS DB Plan and the funding of retiree health benefits.

QUICK FACTS ABOUT THE CalPERS DEFINED BENEFIT PLAN

(As of June 30, 2010)

Active and inactive members……………………………………………1,116,044
Retirees, survivors, and beneficiaries……………………………………513,623
Total…………………………………………………………………1,629,667

Annual benefits paid…………………………………………………$13 Billion

Annual health premiums paid…………………………………………$6 Billion

Annual return on investments…………………………………………13.3%
(for FY ending June 30, 2010)

Average monthly service retirement benefit
(All members)…………………………………………………………$2,220

Average monthly service retirement benefit
for school members (Misc.) ……………………………………………$1,193

Average years of service at retirement
for school members (Misc.)……………………………………………16.8

Average monthly retirement benefit
for State members (Misc.)………………………………………………$2,500

Average years of service at retirement
for State members (Misc.) ………………………………………………23.1

Average monthly retirement benefit
for public agency members (Misc.)……………………………………$2,363

Average years of service at retirement
for public agency members (Misc.)……………………………………20.0

Current CalPERS administrative budget……………………………$331 million
Number of employees…………………………………………………2,317

RETIREMENT

CalPERS administers a defined benefit retirement plan, commonly referred to as a pension plan. Benefits are based on a member's years of service, age, and highest one-year or three-year average compensation. In addition, benefits are provided for disability and death, with payments in some cases going to survivors or beneficiaries of eligible members. We administer several defined benefit formulas for various classes of State employees, one for classified school employees, and one or more formulas for over 1,500 other public agencies. The CalPERS membership is divided approximately in thirds among current and retired employees of the State, public school districts, and participating local public agencies.

CalPERS Membership Profile

(as of June 30, 2010)

State employees…………………………..31%

School employees………………………...38%

Local public agency employees…………31%

CalPERS pension plans have three sources of funding: employee contributions, employer contributions, and investment earnings.

Each year, CalPERS actuaries calculate a funded status – the ratio of assets to liabilities for each retirement plan. The funded ratios vary from year to year but are expected to approach 100 percent over the long term, assuming all actuarial assumptions are met. A funded status of 100 percent means if all members were to retire today, CalPERS would have 100 percent of the funds needed to pay benefits. However, many CalPERS members work full careers and will not be retiring for another 10, 20 or 30 years. Therefore, it is not necessary to keep the system 100 percent funded at all times. As pension plan administrators, CalPERS continuously monitors the funded status and makes necessary adjustments to ensure the long-term financial health of the system.

FUNDED STATUS OF RETIREMENT PLANS BY MEMBER CATEGORY

MEMBER CATEGORY	6/30/04	6/30/05	6/30/06	6/30/07	6/30/08	6/30/09
STATE	82.9%	85.5%	88.6%	96.6%	84.9%	58.4%
SCHOOL	91.4%	96.2%	98.7%	107.8%	93.8%	65.0%
PUBLIC AGENCY	87.6%	90.2%	92.7%	102.0%	89.6%	60.0%

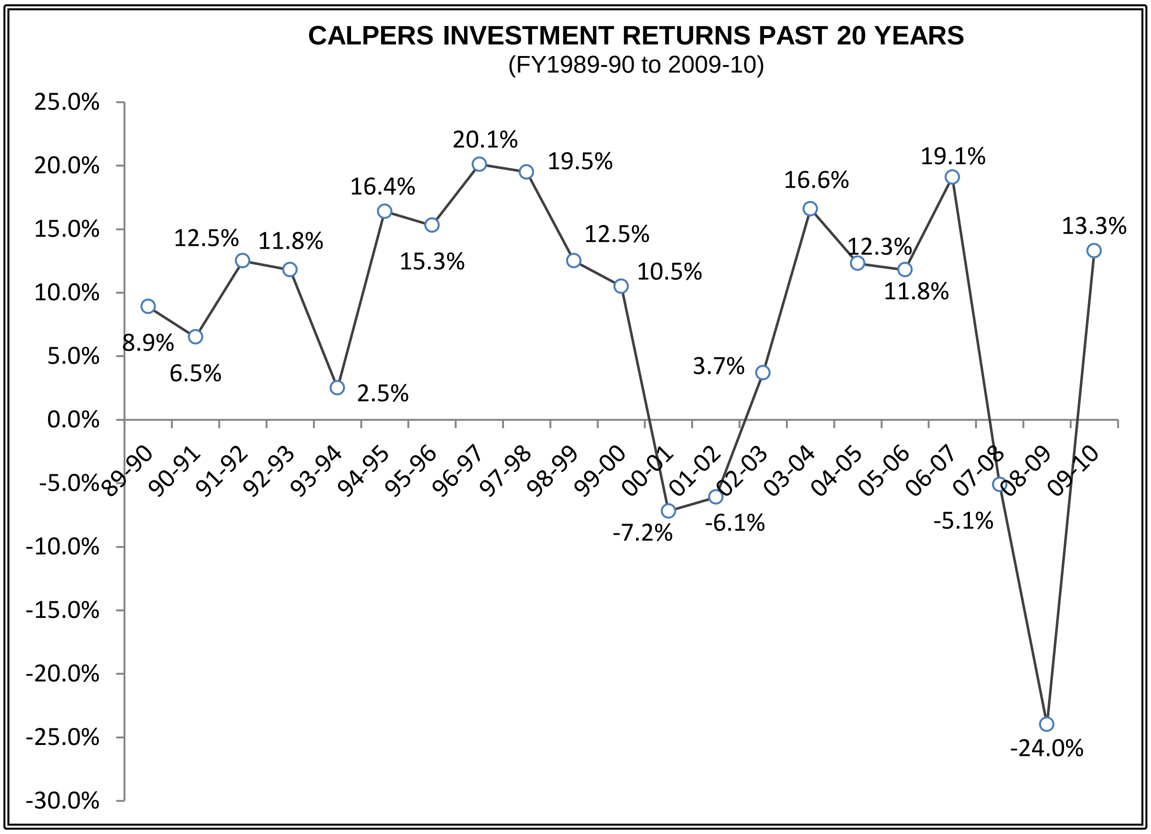
INVESTMENTS

The CalPERS Investment Office manages the investments of the largest state public pension fund in the United States. CalPERS invests in a broad mix of asset classes that include public stocks and private equity, real estate, bonds, hedge funds, venture capital, commodities, infrastructure and forest land. As a global investor, CalPERS invests in more than 9,000 public companies in more than 40 countries.

The System's investment portfolio is managed by professional investment staff, sometimes partnering with some of the best informed professionals in the financial industry. Our Chief Investment Officer has sole authority to negotiate and execute investments and reports directly to the CalPERS Board of Administration. The Board establishes asset allocation strategies, investment policies and risk-tolerance levels. Historically, about 65 to 75 percent of CalPERS benefit payments come from investment earnings. The remainder comes from contributions by employers and active employees.

HISTORY OF SOLID RETURNS

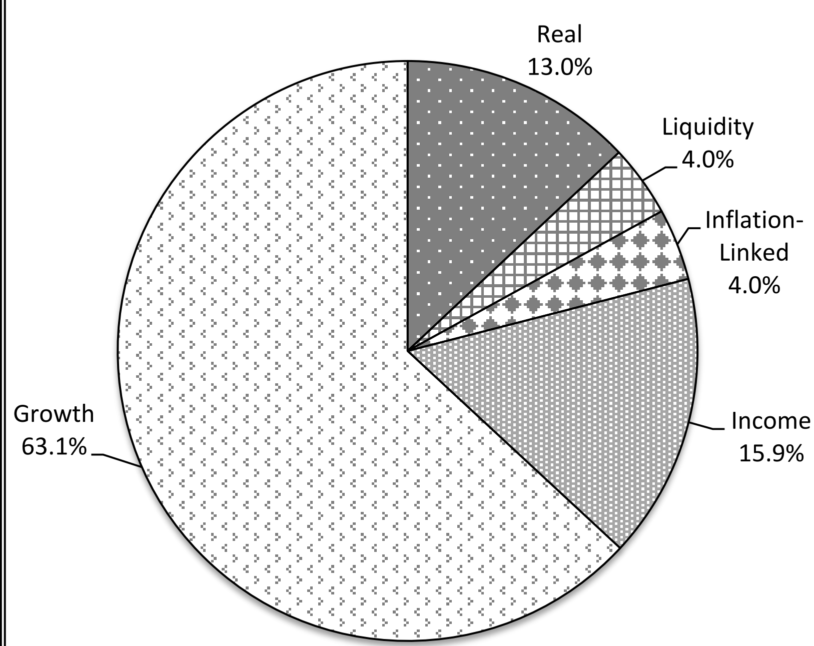
CalPERS has a long history of solid, risk-adjusted returns, recording gains in 21 of the last 25 years. In 17 of those years the returns were greater than 10 percent. Over the past 20 years, CalPERS has earned an average annual investment return of 7.9 percent. From 1988 to 2010, CalPERS has generated an annual average return of 8.6 percent.



A LANDMARK ASSET ALLOCATION PLAN

In December 2010, the CalPERS Board adopted an innovative asset allocation strategy to better reflect varying market conditions, effective July 2011. The new allocation plan places CalPERS assets in five major groups according to how they are expected to perform in high- or low-growth markets and the prevailing inflation environment. The new asset groups are *Liquidity, Growth, Income, Real, and Inflation-Linked*. There is no specific timeline for deploying funds under the new allocation because specific investment transactions will depend partly on market trends and opportunities.

ASSET ALLOCATION TARGETS



CalPERS SUPPLEMENTAL INCOME PLANS

CalPERS administers three supplemental income retirement savings plans:

- CalPERS Supplemental Income 457 Plan
- Supplemental Contributions Plan (SCP)
- Peace Officers' & Firefighters' (POFF) Supplemental Plan

CalPERS SUPPLEMENTAL INCOME 457 PLAN

The CalPERS Supplemental Income 457 Plan is a deferred compensation retirement savings plan that public agency and school employers may adopt and offer to their employees to help them reach their retirement income goals. It is a way for participants to defer a portion of their pre-tax salary into their choice of a variety of investment options. Participants may change their contribution amount, transfer funds among a variety of investment options, or change contribution allocation percentages designated to each option. This plan allows both the amount contributed and the amount earned on the investment to be protected from income tax until the money is taken out during retirement or separation from the employer.

The 457 plan supplements the traditional pension plan offered by CalPERS. All California public agencies and school districts, including agencies that do not currently contract with CalPERS for retirement benefits, may adopt the 457 plan for the benefit of their employees.

SUPPLEMENTAL CONTRIBUTIONS PLAN (SCP)

The Supplemental Contributions Plan is an after-tax supplemental contributions program available to State employees, and members of the Judges' Retirement System I and II. SCP participants may make periodic cash contributions or after-tax payroll deductions. Participants may change their contribution amount and allocation, and transfer account balances among a variety of investment options. SCP allows participants to voluntarily invest after-tax contributions into an account where all earnings grow tax-deferred until the participant begins to take withdrawals in retirement or upon separation from all State employment. Upon distribution, members only pay taxes on the pre-tax earnings.

STATE PEACE OFFICERS' & FIREFIGHTERS' (POFF) SUPPLEMENTAL PLAN

The State Peace Officers' & Firefighters' (POFF) Supplemental Plan is an employer-provided retirement benefit negotiated between the State of California and certain employee groups. The contributions are invested by CalPERS and credited to each participant's account along with any net earnings. The balance of the account is available to POFF participants only at retirement or upon permanent separation from all State employment.

HEALTH BENEFITS PROGRAM

For many years, the CalPERS Health Benefits Program has focused on reining in the drivers of health insurance premium costs by leveraging our purchasing power; providing quality, comprehensive benefits; and enhancing the value of member benefits.

CalPERS manages health benefits for more than 1.3 million active and retired State and local government public employees and their family members. CalPERS is the largest purchaser of public employee health benefits in California, and the second largest public purchaser in the nation after the federal government. In 2010, CalPERS spent more than $6 billion to purchase health benefits. Currently, CalPERS offers three Health Maintenance Organization (HMO) plans:

- Blue Shield of California Access +
- Blue Shield of California NetValue
- Kaiser Permanente

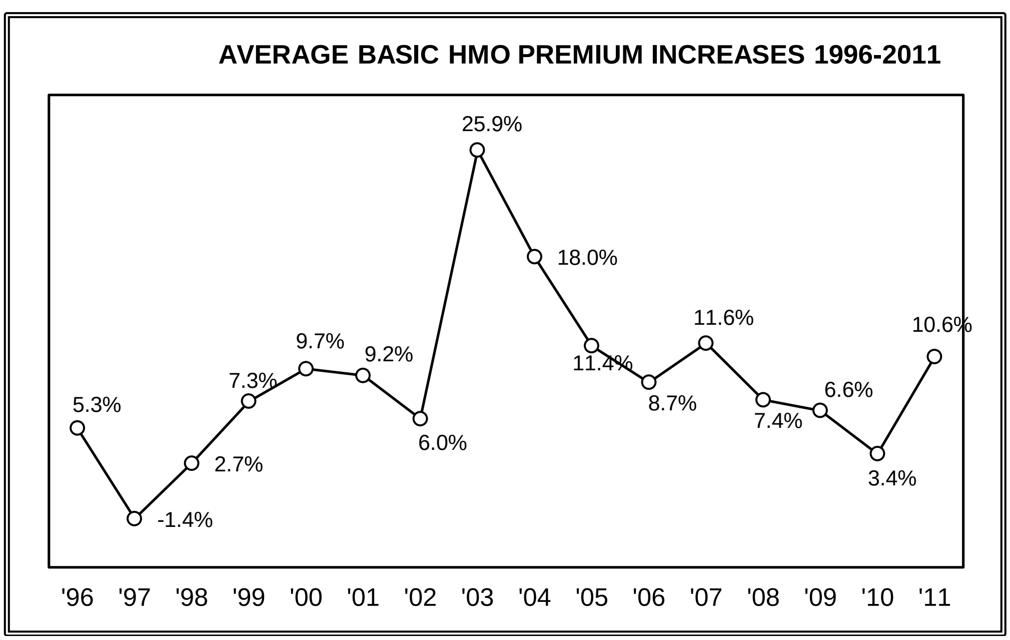
CalPERS also offers three self-funded Preferred Provider Organization (PPO) plans administered by Anthem Blue Cross:

- PERS Select
- PERS Choice
- PERSCare

In addition, CalPERS offers three health plans for specific employee association members:

- California Association of Highway Patrolmen Health Benefits Trust (CAHP)
- California Correctional Peace Officers Association (CCPOA)
- Peace Officers Research Association of California (PORAC)

The chart below depicts the average rate of increase in the basic HMO premium from 1996-2011.



CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST (CERBT)

The purpose of the CalPERS CERBT Fund (the Fund) is to provide California government employers with a trust through which they can prefund retiree health insurance benefits and other post-employment benefits. The investment objective of the Fund is to seek favorable returns that reflect the broad investment performance of the financial markets through moderate capital appreciation and reasonable investment income. The Fund provides opportunities for long-term growth of capital balanced with stable income, and utilizes the concept of diversification through asset allocation. It is designed to carry a lower level of volatility risk than a portfolio consisting entirely of common stocks.

RETIREMENT PLANS

CalPERS RETIREMENT PLANS

CalPERS administers a traditional defined benefit plan, often referred to as a pension plan, as the primary retirement plan for members, and three supplemental income plans that are available to various State and local government employers and their employees.

The defined benefit pension plan provides guaranteed lifetime retirement income based on a predetermined formula that includes an employee's age at retirement, length of service, and highest one-year or three-year average compensation. A CalPERS pension provides employees with a predictable monthly retirement benefit.

CalPERS also offers three supplemental income plans, which are intended to supplement the primary defined benefit pension plan. These supplemental plans are called defined contribution plans. Defined contribution plans do not provide a guaranteed benefit. Plan benefits are determined by the amount contributed by the member, and in some cases the employer, and investment earnings. Below is a brief description of the three CalPERS supplemental income plans.

- *CalPERS Supplemental Income 457 Plan* - A deferred compensation plan for employees of public agency and school districts that contract with CalPERS for this plan.
- *Supplemental Contributions Plan* - A federally tax-qualified defined contribution plan managed by CalPERS that is available to State employees. Participants make contributions on an after-tax basis.
- *State Peace Officers' & Firefighters' Supplemental Plan* - A money purchase plan available only to certain State employees who bargained for this supplemental plan.

Note: The California Department of Personnel Administration (DPA) administers additional tax-deferred savings plans for most State of California employees, including employees of the Legislature, Judicial and California State University (CSU) systems.

How Defined Benefit and Defined Contribution Plans Differ

Characteristics & Features	Defined Benefit (DB) Plans	Defined Contribution (DC) Plans
Definition	Provides a guaranteed lifetime retirement income based on a predetermined formula (age at retirement, years of service, and final compensation).	Provides a non-guaranteed individual retirement account for each employee based on employee and/or employer contributions, plus or minus any investment gains or losses.
Employer Contributions	Employer contributions vary from year to year and are determined actuarially.	Employer contributions are fixed and not subject to market fluctuation. Some DC plans feature only employer contributions or employee contributions, while others may allow both employer and employee contributions.
Employee Contributions	Most governmental DB plans require employee contributions.	Many DC plans do not require employee contributions although employees may voluntarily contribute.
Investment Management	Professionally managed by plan administrator.	Typically managed by the individual.
Investment Returns	DB plans typically have better investment returns due to economies of scale and professional management. DB plans are able to weather the storm of a bad economy by using long-term investment strategies.	DC plans put the responsibility of investment management on the individual with no guarantee that a benefit will be available upon retirement during economic downturns.
Investment Risks	Employers bear the risk of investment losses and benefit from investment gains.	Employees bear the risk of investment losses and benefit from investment gains.
Longevity/Mortality Risk (Outlive Assets)	Employers and employees benefit from varied mortality rates among large pools of members. DB plans are able to plan for the average life expectancy of a group. DB plans endure across generations and can invest in well-diversified portfolios.	Individuals have finite life spans, thus they cannot take advantage of longevity risk pooling. Individuals must plan for the maximum life expectancy to avoid outliving one's assets.
Leakage of Plan Assets	Typically do not allow loans or hardship withdrawals.	Typically allows loans and hardship withdrawals.
Portability	DB plans can allow for portability with reciprocity agreements between other public plans and purchases of prior service.	DC plans offer portability by being transferrable from one employer to another.
Recruitment Tool	May appeal to employees who prefer stability in employment and guaranteed retirement benefits.	May appeal to employees who prefer employment mobility and want to transfer their retirement plan from one employer to another.
Retention Tool	Rewards longevity and loyalty because benefits increase as the number of years worked increase.	Due to portability, employees may move from employer to employer with ease.
Attrition Tool	Retirement benefit and features may be designed to encourage attrition when decreasing the workforce is necessary in lieu of layoff.	Decreasing workforce size can only be accomplished with layoff.
Cost of Living Adjustments (COLAs)	DB plans can be designed to include cost of living adjustments.	DC plans do not adjust for inflation.
Disability Benefits	Most DB plans provide a monthly disability retirement benefit as an ancillary benefit.	Most DC plans do not provide disability retirement benefits.
Survivor Benefits	Most DB plans provide an option for survivor benefits to ensure that spouses and other named beneficiaries receive a monthly benefit upon the member's death.	DC plans typically do not provide an option for survivor benefits. The balance in the individual's account is all beneficiaries and survivors are entitled to.
Administrative Costs	DB plans usually cost less to administer than DC plans. The size of DB plans creates an economy of scale that lowers the cost of administration.	Administrative costs of DC plans are typically higher than DB plans because DC plans are individually maintained accounts. Administrative fees are typically passed on to the employee.

HUMAN RESOURCE MANAGEMENT TOOLS

Defined benefit pension plans can provide employers with recruitment, retention and attrition tools.

How do DB pension plans benefit *recruitment?*

- The retirement security provided by a DB pension plan, along with salary and other benefits, is often a strong consideration of employees searching for employment.
- A recent Towers Watson survey of 9,080 full-time U.S. employees at nongovernment organizations shows that one-third of employees at companies that sponsor a DB plan cite pension benefits as an important factor in their decision to work for their current employer, compared to only one-fifth of those at organizations that offer only a 401(k)-style defined contribution (DC) plan[1].
- DB plans often provide cost-effective disability benefits, which are especially important to safety personnel such as policeman and firefighters.

How do DB pension plans benefit *retention?*

- Once an employee has worked a number of years toward a vested, guaranteed life-time pension benefit, they often choose to stay with the employer to collect their benefit at retirement. This results in employee loyalty[2].
- Employee retention can reduce training costs and increase institutional knowledge.
- A recent study found that almost three in five (59%) employees at organizations that sponsor a DB plan cite their pension plan as an important reason for deciding to stay with their current employer, compared to only 32 percent of workers who have a DC plan.

How do the DB pension plans benefit attrition during economic downturns?

- The CalPERS DB plan also offers a plan feature called “the Golden Handshake,” which facilitates attrition during challenging budget times. By providing an incentive for older workers who are typically more highly paid to retire, employers can generate salary savings by hiring younger workers at lower wages, or employers can decide not to fill a retiree’s vacated position.
- DB plans can be designed to encourage attrition for safety workers by providing benefit formulas that encourage early retirement.

[1] Towers Watson. ”Research & Ideas.” *Retirement Attitudes: Part III: Attraction and Retention*, December 2010. http://www.towerswatson.com/assets/pdf/2717/Towers-Watson-Retirement-Pt3-Attitudes.pdf.

[2] Beth Almeida. “State of Connecticut: Office of Policy and Management.” *DB Pensions: the Real Deal,* The Journal of Pension Benefits, July 2010. *http://www.ct.gov/opm/lib/opm/secretary/opeb/db_pensions_the_real_deal.pdf, p 6.*

Description of CalPERS DB Plan Benefits

Service Retirement Benefits

- CalPERS offers a defined benefit retirement plan that provide benefits that are based on a defined formula.
- The retirement formula for each member generally depends on their employer, the classification of their employment, and when they began employment.
- For example, currently a common service retirement formula for public agency miscellaneous members and State miscellaneous members is the 2 percent at 55 formula, which provides 2 percent of the member's highest average compensation for each year of service at age 55. Therefore, a member retiring at age 55 with 25 years of service will receive 50 percent (2% x 25 = 50) of his or her highest annual average compensation.
- Members may retire earlier or later than the normal retirement age. In the above example, members who retire between age 55 and 50 receive progressively less than 2 percent of the highest average pay for each year of service. The percentage increases above 2 percent if the employee retires after age 55, up to 2.418 percent at age 63 for public agency miscellaneous members and up to 2.5 percent for State miscellaneous members. Note: For State miscellaneous members, recent pension reforms changed the formula for new members to 2% at 60.

Disability and Industrial Disability Retirement Benefits

- Members who are vested can be retired for disability if they cannot perform their job duties permanently or for a prolonged period for their current employer.
- Generally, it is calculated as a percentage of their compensation.
- If the disability of industrial or safety members results from job-related illnesses or injuries, members are paid an industrial disability benefit of 50 percent of the their highest annual compensation, which is not subject to federal or state income taxes.
- Industrial or safety members who reach minimum retirement age can receive an industrial disability allowance greater than 50 percent, but that additional amount is subject to taxation.

Survivor Benefits

- In the event of a member's death, a variety of benefits may be paid depending on their employer, type of job performed, whether they died on the job or under other circumstances, and whether they were eligible to retire or already retired.
- For those who are not retired, their named beneficiary is typically eligible to receive one or more of the following benefits: a lump sum payment of the member's retirement contributions plus interest, up to six months' salary, or an ongoing monthly allowance.

- At retirement members have the option to provide an ongoing monthly allowance for their named beneficiary based on an actuarial reduction of their retirement allowance.

ELIGIBILITY FOR BENEFITS

- Generally, employees are mandatory participants in CalPERS if they work at least half-time in a position that is eligible for CalPERS membership. Employers may choose to contract for optional membership for employees that work less than half-time.
- Most members become vested after five years of service. Once a member is vested, they become eligible to receive a retirement benefit upon reaching retirement age.
- Members of CalPERS' State second tier plan must have 10 years of service to be vested.
- CalPERS also has "reciprocity" agreements with many California public retirement systems. Reciprocity agreements allow public employees to move from one retirement system to another without loss of benefits, using their highest average compensation and age at retirement for benefit calculations of reciprocal retirement plans.
- Under certain circumstances, some elected officials are eligible to elect optional membership into the system.

COORDINATION WITH SOCIAL SECURITY BENEFITS

- Approximately two-thirds of CalPERS members participate in retirement plans that are coordinated with Social Security and are therefore eligible to receive Social Security benefits in addition to their CalPERS pension.
- In addition to CalPERS contributions, the employee and employer must each contribute to Social Security 6.2 percent of salary above a set amount to pay for these benefits.
- The remaining one-third of CalPERS members that participate in an uncoordinated plan (generally safety members) do not contribute to Social Security and are not eligible to receive Social Security retirement, or death and disability benefits.

ECONOMIC IMPACT OF CalPERS DB PLAN

Economic Impact of CalPERS on the California Economy

CalPERS investments, pension benefits, and health benefits provide a considerable boost to the California economy. According to economic impact studies conducted by researchers at California State University, Sacramento, CalPERS programs in 2006 generated nearly $35 billion in economic activity statewide.

- In 2006, CalPERS investments in California generated more than $15 billion in economic activity supporting 124,000 jobs with a payroll of $5.1 billion and producing $864 million in state and local tax revenues.

- CalPERS pension benefits generated $11.8 billion in economic activity, supporting 78,000 jobs with a payroll of $2.7 billion and producing $778 million in state and local tax revenues.

- CalPERS health benefit payments generated $7.6 billion in economic activity, supporting 51,000 jobs with a payroll of $2.8 billion and producing $371 million in state and local tax revenues.

For fiscal year ending June 30, 2010, nearly 506,000 retirees received benefits totaling $12.97 billion, most of which went back into the California economy stimulating further economic activity, such as consumer spending, job creation and government tax revenues.

Economic Impact of Providing Retirement Security for Workers

During an economic recession, CalPERS pensions, as well as other public and private pensions, can provide a stabilizing force for the California economy.

- Pensions provide retirement security to workers, which reduces the cost of social service programs for the elderly and disabled, resulting in savings to taxpayers.

- Providing retirement security to older workers benefits the state economy because older workers can afford to retire, thus leaving jobs available for younger workers. This leads to less unemployment and lower expenses for unemployment insurance benefits.

FUNDING RETIREMENT BENEFITS

ACTUARIAL FUNDING BASICS

What is an actuarially sound retirement system?

- An actuarially sound retirement system is a retirement plan that contains sufficient funds to pay future obligations, by receiving contributions from employees and the employer, which are invested. The funds grow over time, and are used to pay future benefits.

What do pension actuaries do?

- Pension actuaries estimate how much money must be contributed to a pension plan each year in order to pay the benefits that will become due in the future. This is done through analysis of the financial consequence of risk. Actuaries use mathematics, statistics, and financial theory to study uncertain future events, particularly those of concern to insurance and pension programs.
- For example, pension actuaries analyze probabilities related to the demographics of pension plan members (i.e., the likelihood of retirement, disability, and death) and economic factors that may affect the value of benefits or the value of assets held in a pension plan's trust (e.g., investment return rate, inflation rate, and rate of salary increases). Pension actuaries determine the value of pension benefits and work with employers to devise strategies for funding the cost of the benefits.

What is an actuarial valuation?

- Actuaries produce annual actuarial reports called *actuarial valuations.*
- These valuations are done as of a specific point in time each year either on a calendar year basis or fiscal year basis. At CalPERS, actuarial valuations are done on a fiscal year basis, as of June 30th each year.
- An actuarial valuation is a financial examination at a specific point in time of a pension plan to determine whether contributions and investment earnings are being accumulated at the rate sufficient to provide the funds to pay promised pensions when they are due.
- The valuation reports provide employers with their retirement plan's funded status, contribution rate, and annual required contribution to maintain sound funding over the long term, if all actuarial assumptions are met.
- Actuarial valuations can assist decision makers achieve equity across generations of taxpayers, by funding the employees' benefits while they are rendering service, so that the cost of the benefits is incurred by the taxpayers receiving services from those employees.
- At CalPERS, all annual actuarial valuation reports with a valuation date of June 30, 2009 or later include an investment return sensitivity analysis. The sensitivity analysis included in each report helps display the potential investment risk to the employer contribution rates. The goal of the investment return sensitivity analysis is to be more transparent and provide additional information to all employers to better help them budget for future years.

- CalPERS has in-house actuarial staff to produce actuarial valuations and contracts with an actuarial consultant to conduct independent parallel valuations. Any discrepancies are noted and recommendations may be offered. If the work is found to be valid, the consultant may certify the results of actuarial valuations performed by the CalPERS Actuarial Office.

What is the basic actuarial funding equation?

- The basic funding equation is:
  Contributions + Investment Returns = Benefits + Expenses
  This equation provides the foundation for understanding how prefunded pension (or other post-employment benefit) plans are funded.

How does the funding of the retirement system work?

- Employer and employee contributions flow into a trust fund that is dedicated for the purpose of paying benefits. Those contributions are invested and earn investment returns. Benefits and expenses are paid out of the fund. Any increase in benefits will ultimately require a corresponding increase in contributions or investment returns or both.
- Pension fund assets are invested in stocks, bonds, real estate, and other investments, which means the values of the assets are constantly fluctuating. In good economic times, investment values typically go up. In bad economic times, investment values typically go down. CalPERS' long-term assumed rate of return is 7.75 percent.
- Pension plans are prefunded. The advantage of prefunding is that over time the majority of benefit costs are paid by investment returns rather than by contributions from the employer or employees. Historically, about 65 percent to 75 percent of CalPERS benefits are paid from investment earnings.
- For most public pension plans, including CalPERS, prefunding of benefits is done over a level percentage of payroll to help employers budget for the future and strive for inter-generational equity. This funding method is called the "Entry-Age Normal" Funding Method.

How is the employer contribution rate determined?

- Information about the plan benefit provisions and demographics along with actuarial assumptions are used to determine expected future benefit payments. These actuarial assumptions include the age when members are expected to retire, how long members are expected to live and economic factors that may affect the value of benefits or the value of assets held in a pension plan's trust fund (e.g., investment return rate, inflation rate, and rate of salary increases).
- These expected future benefit payments are then "discounted" back in today's dollars using the expected investment return rate to obtain what is called the present value of future benefits (PVB).
- If the system has assets equal to the PVB, and all actuarial assumptions come true, no additional contributions are needed to provide future benefits for current active and retired members - even taking into account future service and salary increases for active members. The actuarial methods and funding policies

determine how much of the PVB should be contributed in the current year and future years so that, together with existing assets, the entire PVB will be funded.

- PVB can be broken into two pieces:
  1) Actuarial Accrued Liability (AAL) – the cost of the benefits earned by members on the date of the valuation.
  2) Present Value of Future Contributions – value of all expected contributions in today's dollars.
- Each year, the valuation measures current costs of the benefits employees in the plan have earned to date. The cost is compared to the assets in the plan. If the costs are greater than the assets, the difference is called the Unfunded Actuarial Liability.
- At CalPERS, rates are comprised of two components. An annual premium that funds the benefits earned over the coming year and an amortized payment, which is determined by the amount of unfunded liability the plan may have. In theory, if a plan's experience is exactly as the actuary has predicted, there will never be an unfunded liability. However, in practice, short term experience is always different from assumptions made. Differences in the plan's experience are called gains and losses.
- The unfunded liability is the amount of accrued pension liabilities that exceed assets. The unfunded liability figure is not the same as a conventional debt that must be paid off to be eliminated. It is an abstract accounting number that can go up or down significantly over a relatively short period of time, depending on the state of the overall economy and the health of the financial markets.
- Asset Smoothing Method: For most public pension plans, including CalPERS, the plan's investment gains and losses are spread, or "smoothed," over a period of time in order to minimize short term, year-to-year contribution rate fluctuations. Actuaries accomplish this smoothing by assigning a market-related value to a plan's assets for purposes of determining contribution requirements. This value is called the actuarial value of assets (AVA) or, more commonly, the "smoothed value" of assets.

What is the Funded Status? What does it represent?

- The funded status of a plan is the ratio of the plan's costs to the plan's available assets on the date of the annual valuation.
- When comparing the plan's cost to its assets on a market value basis, the percentage will give you a general idea of the relative health of the plan.
- It is important not to focus too much on the funded status of a plan at any single point in time because the funded status can go up or down significantly over a relatively short period of time depending on the overall health of the economy. What is more important is to look at how a plan got to their current funded status rather than what the funded status is on a particular date. A lower funded status was expected as a result of the deep recession and bear market in 2008 and 2009. Along the same lines, plans were expected to be overfunded in 2000 as a result of the bull market and very strong economy in the late 1990s. What matters is understanding how the plan got to that situation and what the situation tells you about whether or not the plan is being properly prefunded.

- A funded ratio of 100 percent means the plan has all of the assets required to pay benefits if all plan members were to retire today. However, most plan members will not be retiring for another 10, 20, 30 years or more. Therefore, it is not necessary to be at 100 percent funding at all times, although the goal is to be near 100 percent over the long term. At any given time, the funded ratio will likely be under or over 100 percent.
- It is also important to understand that future hires do not impact a plan's funded status. Since new plan entrants have no prior service, they have no costs or assets associated with them.

What is done to minimize volatility in pension costs?

- The most common way to minimize volatility in pension cost is the use of an asset smoothing method as previously described.
- The gains and losses described earlier are typically amortized over extended periods of time to minimize volatility in cost and also because these gains and losses are expected to cancel one another over time.
- CalPERS also created risk-sharing pools in 2005 in order to minimize volatility in pension costs for smaller employers. These risk pools spread demographic gains and losses across all small plans that offer the same benefit formula. With a larger sample of data exposed, experience is easier to predict. This helps to keep the rates for smaller employers more stable.
- For most public pension plans, including CalPERS, prefunding of the benefits is achieved by contributions that represent a relatively level percentage of payroll, which minimizes volatility in pension costs.

What is the role of the CalPERS Board of Administration?

- In California, retirement system boards have the responsibility to set actuarial methods and assumptions, and to determine contribution policy, while the actuary's role is to make recommendations to the board in these areas.
- The actuarial assumptions and funding policies adopted by the board determine expected costs and when the costs are paid. Changes in those assumptions or policies can increase or decrease the current contribution requirements. It is important to remember that the ultimate cost of the plan will depend only on the plan's actual experience, regardless of what was assumed would happen.

What can be expected of pension costs in the near future?

- The best way to determine where future costs are headed is to look at recent investment returns. For example, the return earned in the 2008-2009 fiscal year has a direct impact on the rates set for the 2011-2012 fiscal year. The greater the difference realized between the actual rate of return and the expected rate return, the more volatility you will see in pension contribution rates.
- Demographic experience from year to year also impacts future rates. Unexpected salary increases, early retirements, disabilities and deaths are just a few events that cause pension rates to fluctuate. At CalPERS, the experience realized in one fiscal year affects the employer contribution rate two years into the future for public agency plans; one year in the future for State and school plans. For example,

experience analyzed during the 2008-2009 fiscal year affects public agency rates for the 2011-2012 fiscal year.

How can employers reduce their pension costs?

There are a few options available to reduce employer pension costs. These options are outlined below.

1) Transfer more of the pension contribution costs to employees. The savings under this option would be immediate. There are two ways to do this.
   a) If the employer pays for part of the employees' share by resolution, the employer can bargain with employee groups to lower the percentage the agency will pay for the employees' portion. Employers may check with the CalPERS Contracts Unit to see if the employer paid member contribution resolution needs to be updated.
   b) The employer can contract for a benefit called cost sharing. This benefit allows members to "share" in the cost of any amendment or "upgrade" the agency has implemented since first contracting with CalPERS. If employers are interested in this option they can contact the Contracts Specialist.

2) Offer *new* employees a lower set of benefits. Doing so will produce future savings, but not in the short-term. This is to be viewed as a long-term savings goal. Since the lower benefits will only be in effect for *new* employees, the employer will have to wait until new employees replace current employees, and the workforce is composed mostly of new employees in order to realize the full savings. At CalPERS, we call these lower-benefit plans *second tiers*.

Second tier options include lowering benefit formulas or removing certain optional benefit upgrades from the employer's CalPERS contract. Below is a list of such upgrades that could be removed.

- One Year Final Compensation
- Employer Paid Member Contributions (by Contract Amendment)
- Post-Retirement Survivor Allowance
- 3%, 4%, or 5% Annual Cost of Living Allowance
- Industrial Disability Retirement for Local Miscellaneous Members
- Improved Industrial Disability Retirement Allowance

SAMPLE ACTUARIAL VALUATIONS

In the following section, you will find two sample actuarial valuation documents created with fictitious agency information. One is for a non-pooled agency and one is for a pooled agency. The intent is to show a summary of the important elements in the annual valuation. Each sample has call-out boxes that describe key information.

For the non-pooled agency, the sample valuation shows the current employer contribution rate, the projected rates for the following two fiscal years, the annual required contribution commonly referred to as the “ARC,” the funded status of the plan, and a sensitivity analysis of projected rates based on five different investment return scenarios.

For the pooled agency, the sample valuation shows the current employer contribution rate, the projected rate for the following year, the pool’s base employer rate, the employer contribution rate, the side fund balance, the estimated pool’s base employer rate, the next year’s estimated pool’s base employer rate, and a sensitivity analysis of projected rates based on five different investment return scenarios.

NON-POOLED AGENCY

Actuarial Office
P.O. Box 1494
Sacramento, CA 95812-1494
TTY for Speech and Hearing Impaired - (916) 795-3240
(888) CalPERS (or **888**-225-7377) FAX (916) 795-3005

SAMPLE VALUATION NON-POOLED AGENCY

October 2010

MISCELLANEOUS PLAN OF THE CITY OF XYZ (EMPLOYER # 999)
Annual Valuation Report as of June 30, 2009

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2009 actuarial valuation report of your pension plan. This report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary is available to discuss the report with you.

Changes Since the Prior Year's Valuation

The CalPERS Board of Administration adopted updated actuarial assumptions to be used beginning with the June 30, 2009 valuation. In addition, a temporary modification to our method of determining the actuarial value of assets and amortizing gains and losses has been implemented for the valuations as of June 30, 2009 through June 30, 2011. Finally, a cash flow analysis has been added to our process. If such an analysis indicates that funding progress will not be adequate, an additional contribution will be required.

There may also be changes specific to your plan such as contract amendments and funding changes.

Further descriptions of changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions." The effect of the changes on your rate is included in the "Reconciliation of Required Employer Contributions."

Future Contribution Rates

The exhibit below displays the required employer contribution rate and Superfunded status for 2011/2012 along with estimates of the contribution rate for 2012/2013 and 2013/2014 and the probable Superfunded status for 2012/2013. The estimated rate for 2012/2013 is based solely on a projection of the investment return for fiscal 2009/2010, namely 11.0%. The estimated rate for 2013/2014 uses the valuation assumption of 7.75% as the investment return for fiscal 2010/2011. See Appendix D, "Investment Return Sensitivity Analysis", for rate projections under a variety of investment return scenarios. Please disregard any projections that we may have provided to you in the past.

Fiscal Year	Employer Contribution Rate	Superfunded?
2011/2012	10.916%	NO
2012/2013	11.9% (projected)	NO
2013/2014	15.0% (projected)	N/A

Employer Contribution Rates for 3 Fiscal Years

Member contributions (whether paid by the employer or the employee) are in addition to the above rates.

The estimates for 2012/2013 and 2013/2014 also assume that there are no future amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.). **This is a very important assumption because these gains and losses do occur and can have a significant impact on your contribution rate.** Even for the largest plans, such gains and losses often cause a change in the employer's contribution rate of one or two percent and may be even larger in some less common instances. These gains and losses cannot be predicted in advance so the projected employer contribution rates are just estimates. Your actual rate for 2012/2013 will be provided in next year's report.

SAMPLE VALUATION NON-POOLED AGENCY

Purpose of the Report

This report presents the results of the June 30, 2009 actuarial valuation of the MISCELLANEOUS PLAN OF THE CITY OF XYZ of the California Public Employees' Retirement System (CalPERS). The valuation was prepared by the Plan Actuary in order to:

- set forth the actuarial assets and accrued liabilities of this plan as of June 30, 2009;
- certify that the actuarially required employer contribution rate of this plan for the fiscal year July 1, 2011 through June 30, 2012 is 10.916%;
- provide actuarial information as of June 30, 2009 to the CalPERS Board of Administration and other interested parties; and
- provide pension information as of June 30, 2009 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27 for a Single Employer Defined Benefit Pension Plan.

Use of this report for other purposes may be inappropriate.

Required Contributions

	Fiscal Year 2010/2011	Fiscal Year 2011/2012
Required Employer Contributions		
Employer Contribution Required (in Projected Dollars)		
Payment for Normal Cost	$923,350	$973,153
Payment on the Amortization Bases	74,903	392,228
Total (not less than zero)	$998,253	$1,365,381
Annual Lump Sum Prepayment Option*	$961,683	$1,315,362
Employer Contribution Required (Percentage of Payroll)		
Payment for Normal Cost	8.193%	7.780%
Payment on the Amortization Bases	0.665%	3.136%
Total (not less than zero)	8.858%	10.916%

Annual Required Contributions

Funded Status

	June 30, 2008	June 30, 2009
Present Value of Projected Benefits	$78,480,772	$85,595,993
Entry Age Normal Accrued Liability	$65,694,605	$72,490,523
Actuarial Value of Assets (AVA)	64,544,444	67,086,985
Unfunded Liability	$1,150,161	$5,403,538
Market Value of Assets (MVA)	$65,973,630	$49,045,698
Funded Status (on an MVA basis)	100.4%	67.7%
Superfunded Status	No	No

Funded Status – Overall Health of the Fund

* Payment **must be** received by CalPERS between July 1 and July 15.

SAMPLE VALUATION NON-POOLED AGENCY

Investment Return Sensitivity Analysis

The investment return realized during a fiscal year first affects the contribution rate for the fiscal year two years later. Specifically, the investment return for 2009-2010 will first be reflected in the June 30, 2010 actuarial valuation that will be used to set the 2012-2013 employer contribution rates and 2010-2011 investment return will first be reflected in the June 30, 2011 actuarial valuation that will be used to set the 2013-2014 employer contribution rates.

In July 2010, the investment return for fiscal year 2009-2010 was announced to be 11.4%. Note that this return is before administrative expenses and also does not reflect final investment return information for real estate and private equities. The final return information for these two asset classes is expected to be available later in October. The preliminary 11.4% return for the 2009-2010 fiscal year is good news as it would help reduce the impact of the -24% return in 2008-2009 and the impact of the three year phase in adopted by the Board in June 2009. For purposes of projecting future employer rates, we are assuming an 11% investment return for fiscal year 2009-2010.

Based on an 11% investment return for fiscal year 2009-2010 and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2012-2013, the effect on the 2012-2013 Employer Rate is as follows:

Estimated 2012-2013 Employer Rate	**Estimated Increase in Employer Rate between 2011-2012 and 2012-2013**
11.9%	1.0%

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal year 2010-2011 on the 2013-2014 employer rates. Once again, the projected 2013-2014 rate increases assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of fiscal year 2013-2014.

Five different 2010-2011 investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5th percentile return. The 5th percentile return corresponds to a -11% return for the 2010-2011 fiscal year.
- The second scenario is what one would expect if the markets were to give us a 25th percentile return. The 25th percentile return corresponds to a 0% return for the 2010-2011 fiscal year.
- The third scenario assumed the return for 2010-2011 would be our assumed 7.75% investment return which represents about a 47th percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75th percentile return. The 75th percentile return corresponds to a 16% return for the 2010-2011 fiscal year.
- Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return. The 95th percentile return corresponds to a 27% return for the 2010-2011 fiscal year.

The table below shows the estimated 2013-2014 contribution rate and the estimated increase over the 2012-2013 rate for your plan under the five different scenarios.

2010-2011 Investment Return Scenario	Estimated 2013-2014 Employer Rate	Estimated Increase in Employer Rate between 2012-2013 and 2013-2014
-11%	21.2%	9.3%
0%	17.6%	5.7%
7.75%	15.0%	3.1%
16%	12.4%	0.5%
27%	12.2%	0.3%

Projected rates under 5 different investment return scenarios

POOLED AGENCY

Actuarial Office
P.O. Box 1494
Sacramento, CA 95812-1494
TTY for Speech and Hearing Impaired - (916) 795-3240
(888) CalPERS (or **888**-225-7377) FAX (916) 795-3005

SAMPLE VALUATION POOLED AGENCY

October 2010

MISCELLANEOUS PLAN OF THE CITY OF XYZ (EMPLOYER # 9999)
Annual Valuation Report as of June 30, 2009

Dear Employer,

Enclosed please find a copy of the June 30, 2009 actuarial valuation report of your pension plan. Since your plan had less than 100 active members in at least one valuation since June 30, 2003, it is required to participate in a risk pool. The following valuation report has been separated into two sections:

- Section 1 contains specific information for your plan, including the development of your pooled employer contribution rate; and,
- Section 2 contains the Risk Pool Actuarial Valuation appropriate to your plan, as of June 30, 2009.

This report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary is available to discuss the actuarial report with you.

Changes Since the Prior Valuation

The CalPERS' Board of Administration adopted updated actuarial assumptions to be used beginning with the June 30, 2009 valuation. In addition, a temporary modification to our method of determining the actuarial value of assets and amortizing gains and losses has been implemented for the valuations as of June 30, 2009 through June 30, 2011. Finally, a cash flow analysis has been added to our process. If such an analysis indicates that funding progress will not be adequate, an additional contribution will be required.

There may also be changes specific to your plan such as contract amendments and funding changes.

Further descriptions of changes are included in the Section 2 "Highlights and Executive Summary" section and in Appendix A, "Statement of Actuarial Data, Methods and Assumptions."

Future Contribution Rates

The exhibit below displays the required employer contribution rate and Superfunded status for 2011/2012 along with an estimate of the contribution rate and Superfunded status for 2012/2013. The estimated rate for 2012/2013 is based on a projection of the most recent information we have available, including an estimate of the investment return for fiscal 2009/2010, namely 11.0%. See Section 2 Appendix E, "Investment Return Sensitivity Analysis", for increase in 2013/2014 rate projections under a variety of investment return scenarios for the Risk Pool's portion of your rate. Please disregard any projections that we may have provided to you in the past.

Fiscal Year	Employer Contribution Rate	Superfunded?
2011/2012	4.519%	No
2012/2013	5.0% (projected)	No

Employer Contribution Rates for 2 Fiscal Years

Member contributions (whether paid by the employer or the employee) are in addition to the above rates.

SECTION 1 – PLAN SPECIFIC INFORMATION FOR THE MISCELLANEOUS PLAN OF THE CITY OF XYZ

SAMPLE VALUATION POOLED AGENCY

Purpose of Section 1

Section 1 of this report was prepared by the Plan Actuary in order to:

- Certify that the actuarially required employer contribution rate of the MISCELLANEOUS PLAN of the CITY XYZ for the fiscal year July 1, 2011 through June 30, 2012 is 4.519%;
- Set forth the plan's Employer Side Fund as of June 30, 2009;
- Provide pension information as of June 30, 2009 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27.

This section was prepared in order to provide actuarial information as of June 30, 2009 to the CalPERS Board of Administration and other interested parties

Use of this report for other purposes may be inappropriate.

Required Employer Contributions

	Fiscal Year 2010/11	Fiscal Year 2011/12
Employer Contribution Required (in Projected Dollars)		
Risk Pool's Net Employer Normal Cost	$143,684	$144,833
Risk Pool's Payment on Amortization Bases	13,644	34,964
Surcharge for Class 1 Benefits		
a) FAC 1	9,449	9,801
b) 5% COLA	21,553	21,657
Phase out of Normal Cost Difference	0	0
Amortization of Side Fund	(122,103)	(126,071)
Total Employer Contribution	$66,227	$85,184
Annual Lump Sum Prepayment Option*	$63,801	$82,063
Projected Payroll for the Contribution Fiscal Year	$1,856,382	$1,884,863
Employer Contribution Required (Percentage of Payroll)		
Risk Pool's Net Employer Normal Cost	7.740%	7.684%
Risk Pool's Payment on Amortization Bases	0.735%	1.855%
Surcharge for Class 1 Benefits		
a) FAC 1	0.509%	0.520%
b) 5% COLA	1.161%	1.149%
Phase out of Normal Cost Difference	0.000%	0.000%
Amortization of Side Fund	(6.577%)	(6.689%)
Total Employer Contribution	3.568%	4.519%

Pool's Base Employer Rate for FY 2011/12 is 7.684% + 1.855% = 9.539%

The Employer Contribution Rate for FY 2011/12 after adding in Class 1 Benefits Surcharge and Phase Out of Normal Cost Difference and subtracting Amortization of Side Fund

Appendix C of Section 2 of this report contains a list of Class 1 benefits and corresponding surcharges for each benefit.

Risk pooling was implemented as of June 30, 2003. The normal cost difference was scheduled to be phased out over a five year period. The phase out of normal cost difference began at 100% for the first year, and was incrementally reduced by 20% of the original normal cost difference for each subsequent year.

*Payment must be received by CalPERS between July 1 and July 15.

APPENDIX E

SAMPLE VALUATION POOLED AGENCY

Employer Side Fund

At the time of joining a risk pool, a side fund was created to account for the difference between the funded status of the pool and the funded status of your plan. The side fund for your plan as of the June 30, 2009 valuation is shown in the following table.

Your side fund will be credited, on an annual basis, with the actuarial investment return assumption. This assumption is currently 7.75%. A positive side fund will cause your required employer contribution rate to be reduced by the Amortization of Side Fund shown above in Required Employer Contributions. A negative side fund will cause your required employer contribution rate to be increased by the Amortization of Side Fund. In the absence of subsequent contract amendments or funding changes, the side fund will disappear at the end of the amortization period shown below.

Employer Side Fund Reconciliation

	June 30, 2008	**June 30, 2009**
Side Fund as of valuation date*	$989,552	$947,350
Adjustments	0	0
Side Fund Payment	(114,537)	(118,260)
Side Fund one year later	$947,350	$898,013
Adjustments	0	0
Side Fund Payment	(118,260)	(122,103)
Side Fund two years later	$898,013	$840,863
Amortization Period	9	8
Side Fund Payment during last year	$ (122,103)	$ (126,071)

2011 Side Fund

* If your agency employed vouchers in fiscal year 2008/2009 to pay employee contributions, the June 30, 2009 Side Fund amount has been adjusted by a like amount without any further adjustment to the Side Fund's amortization period. Similarly, the Side Fund has been adjusted for the increase in liability from any recently adopted Class 1 or Class 2 contract amendments. Also, the Side Fund may be adjusted or eliminated due to recent lump sum payments. Contract amendments and lump sum payments may result in an adjustment to the Side Fund amortization period.

Superfunded Status

	June 30, 2008	**June 30, 2009**
Is the plan Superfunded?	No	No
[Yes if Assets exceed PVB, No otherwise]		

Summary of Participant Data

Below is a table showing a summary of the active member data for your plan upon which this valuation is based:

	June 30, 2008	**June 30, 2009**
Projected Payroll for Contribution Purposes	$ 1,856,382	$ 1,884,863
Number of Members		
Active	28	27
Transferred	12	11
Separated	11	11
Retired	23	24

SAMPLE VALUATION POOLED

APPENDIX E

Investment Return Sensitivity Analysis

The investment return realized during a fiscal year first affects the contribution rate for the fiscal year two years later. Specifically, the investment return for 2009-2010 will first be reflected in the June 30, 2010 actuarial valuation that will be used to set the 2012-2013 employer contribution rates and 2010-2011 investment return will first be reflected in the June 30, 2011 actuarial valuation that will be used to set the 2013-2014 employer contribution rates.

In July 2010, the investment return for fiscal year 2009-2010 was announced to be 11.4%. Note that this return is before administrative expenses and also does not reflect final investment return information for real estate and private equities. The final return information for these two asset classes is expected to be available later in October. The preliminary 11.4% return for the 2009-2010 fiscal year is good news as it would help reduce the impact of the -24% return in 2008-2009 and the impact of the three year phase in adopted by the Board in June 2009. For purposes of projecting future employer rates, we are assuming an 11% investment return for fiscal year 2009-2010.

Based on an 11% investment return for fiscal year 2009-2010 and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2012-2013, the effect on the 2012-2013 Employer Rate is as follows:

Rate before additional surcharge and + or – amortization of side fund and phase out of normal cost difference

Estimated 2012-2013 Pool's Base Employer Rate	Estimated Increase in Pool's Base Employer Rate between 2011-2012 and 2012-2013
10.0%	0.4%

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal year 2010-2011 on the 2013-2014 employer rates. Once again, the projected 2013-2014 rate increases assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of fiscal year 2013-2014.

Five different 2010-2011 investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5th percentile return. The 5th percentile return corresponds to a -11% return for the 2010-2011 fiscal year.
- The second scenario is what one would expect if the markets were to give us a 25th percentile return. The 25th percentile return corresponds to a 0% return for the 2010-2011 fiscal year.
- The third scenario assumed the return for 2010-2011 would be our assumed 7.75% investment return which represents about a 47th percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75th percentile return. The 75th percentile return corresponds to a 16% return for the 2010-2011 fiscal year.
- Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return. The 95th percentile return corresponds to a 27% return for the 2010-2011 fiscal year.

The table below shows the estimated 2013-2014 contribution rate and the estimated increase over the 2012-2013 rate for your plan under the five different scenarios.

2010-2011 Investment Return Scenario	Estimated 2013-2014 Pool's Base Employer Rate	Estimated Increase in Pool's Base Employer Rate between 2012-2013 and 2013-2014
-11%	16.0%	6.0%
0%	13.6%	3.6%
7.75%	11.9%	1.9%
16%	10.3%	0.3%
27%	10.2%	0.2%

Projected base employer rate under 5 different investment return scenarios

The rates shown on this page are the Pool's Base Employer Rates. This is the Pool's Net Normal Cost (excluding surcharges for Class 1 Benefits) plus the payment of the pool's amortization bases.

UNDERSTANDING PENSION DISCOUNT RATES AND LIABILITIES

Governmental Accounting Standards Board

- CalPERS complies with the accounting standards of the Governmental Accounting Standards Board (GASB) to calculate the unfunded liability of its pension plans. GASB is a non-profit organization that formulates accounting standards for state and local governments. GASB standards are not law but are accounting principles that improve the relevance of financial reporting.

"Risk-Free" Discount Rate as Assumed Rate of Return on Investment

- Recent media coverage of public pension liabilities includes the debate over whether public pension liabilities should be measured using a lower assumed rate of return on investment such as a "risk-free" discount rate.
- The "risk-free" discount rate is commonly used to calculate a plan's settlement cost in the private sector should a plan terminate due to a company bankruptcy, acquisition, or freezing of the pension plan. This measure of liabilities is known as the Market Value of Liabilities (MVL).
- MVL is the methodology promoted by a field of study known as financial economics. MVL is based on a corporate finance model[3].
- In the private sector, corporate accounting standards are guided by the Financial Accounting Standards Board (FASB) which requires corporate pensions to calculate and disclose their MVL.

Should Public Pensions Use a "Risk-Free" Discount Rate?

- Some argue that a "risk free" discount rate should be used to value public pension liabilities because the benefits promised to employees are guaranteed and "risk free."
- If public pension plans use a "risk-free" discount rate to project liabilities, the liabilities would increase based on the assumption that the plan would earn a low rate of return on investments; thereby, increasing costs to employers.
- If pension plans utilized an investment strategy that solely invests in risk-free assets, billions of dollars in potential investment income would be left on the table. It has been demonstrated over time that pension funds can earn a premium over the risk-free rate by investing in a diversified portfolio with an acceptable level of risk. These earnings have historically financed the majority of pension liabilities rather than financing through employer contributions which can impact taxpayers. Historically, about 65 to 75 percent of CalPERS pension fund revenues come from investment returns, not taxpayers or workers.
- CalPERS believes discount rate assumptions should be left to GASB and professional actuarial organizations.
- GASB and actuarial standards of practice do not require public pension systems to use a "risk-free" discount rate. The recommended discount rate

[3] Keith Brainard, *NASRA White Paper: Public Pensions and Market Value of Liabilities*, July 21, 2008, Pages 1-2

assumption is the investment return that one can realistically expect over the long term from a pension fund's investment strategy.

- CalPERS complies with GASB and current actuarial standards by using a discount rate assumption that is in line with its expected long-term investment return.
- Fuel was added to this debate when a few recent studies concluded that CalPERS pension liabilities were much higher than reported because these studies used a "risk-free" discount rate of about 4% as the assumed investment rate of return to produce the inflated liability figure.
- Using a "risk-free" discount rate would be appropriate if the assets of pension funds were invested only in low-yielding Treasury securities, but most pension fund investment portfolios are much more diversified and earn higher returns than Treasury securities alone.

CalPERS Evaluates the Assumed Investment Rate of Return

- CalPERS periodically re-evaluates its assumed investment rate of return for possible changes.
- The most recent CalPERS asset allocation and liability review began in March 2010 and ended in March 2011.
- These reviews are periodic top-to-bottom reviews of our asset allocation and our investment return assumptions.
- Part of this effort includes reaching out to a wide-ranging group of experts with varied opinions through a series of open, honest discussions that underscore CalPERS commitment to transparency and openness. These meetings are open to the public.

CalPERS serves as an honest broker of information and works to ensure that information about our system and public pensions is accurate and factual.

FUNDING RETIREE HEALTH BENEFITS

RETIREE HEALTHCARE COST

There has been increased attention on how to pay for retiree health insurance benefits; concerns about the solvency of the Medicare program; an expanding population of elderly people who are living longer; enhanced and more expensive treatments for acute and chronic medical conditions of the elderly; and, the rapidly growing cost of promised retiree health benefits.

Since 2006, accounting standards created by the Governmental Accounting Standards Board (GASB) require public employers to measure and to report the future cost of Other Post-Employment Benefits (OPEB), including retiree health benefits promised to their employees. The OPEB accounting standards are similar to the pension accounting standards with which the CalPERS pension plan complies. At that time, a cost-effective statewide OPEB prefunding program for public employers did not exist.

Effective January 2009, a new State law (G.C. Section 7507), based on recommendations by a post-employment benefit commission established by the governor, required public employers to prepare and publicly disclose an actuarial cost analysis when considering changes to retirement benefits or OPEB.

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST

Anticipating these developments, and having observed that public employers lacked a cost-effective vehicle to prefund retiree health benefits, the CalPERS Board launched the California Employers' Retiree Benefit Trust (CERBT) program in 2007.

The purpose of the CERBT is to provide California government employers with a trust through which they can prefund retiree health insurance and other post-employment benefit costs. CalPERS' goal is to ensure the sustainability of the CalPERS pension and health benefit systems. Prefunding, paying for benefits as they are earned, investing the payments, and using both investment returns and the contributions to fund retiree benefits, ensures greater sustainability of benefits.

California public employers can prefund retiree health benefits through the CERBT program in the same manner that employers prefund pension benefits through the CalPERS Public Employees' Retirement Fund (PERF). The CERBT program has grown quickly since it began operation in 2007. In its first three years of operation, 258 California public agency employers contributed more than $1.3 billion to the trust fund to prefund the future benefits of over 185,000 Californians. Since the inception of the program, the CERBT has grown into the largest multiple public employer OPEB trust in the nation.

The CERBT program's success is due to a number of factors:
- CalPERS record of excellent long-term investment management
- Uncomplicated, low cost program administration
- Continuous efforts to improve CERBT services

- Technical assistance in compliance and reporting
- Effective employer and member education about the importance of pre-funding

NUMBER OF EMPLOYERS CONTRACTED

As of June 30, 2010

TYPE OF EMPLOYER	NUMBER CONTRACTED
CITIES	79
COUNTIES	11
COURTS	3
SCHOOLS & COUNTY OFFICES	23
SPECIAL DISTRICTS	143
STATE OF CALIFORNIA	1

NUMBER OF COVERED LIVES

As of June 30, 2010

EMPLOYEE STATUS	MISCELLANEOUS	SAFETY
ACTIVE	107,206	23,503
RETIRED	42,308	14,857
TOTALS	149,514	38,360

LOW COST MANAGEMENT

The CERBT program receives voluntary contributions from employers and invests those contributions in public market securities. The contributions and the investment returns are held in a trust fund dedicated exclusively to paying for OPEB promised by employers to their retired employees.

Although accounted for by individual employer, the assets held in trust by the CERBT are pooled in order to broaden investment opportunity and to minimize cost. CalPERS investment staff manage CERBT investments. The CalPERS Board sets the investment policy and asset allocation of the CERBT.

CERBT management fees have been low, less than 0.1 percent of trust assets in each of the first three years of operation. CERBT management cost is paid by participating employers; the management cost will vary from year to year.

INVESTMENT MANAGEMENT

The investment objective of the CERBT is to seek favorable returns that reflect the broad investment performance of the financial markets through capital appreciation and investment income. The CERBT provides opportunities for long-term growth of capital balanced with stable income. It utilizes the concept of diversification through asset allocation. It is designed to carry a lower level of risk than a portfolio consisting entirely of common stocks.

ASSET ALLOCATION STRATEGIES

In March 2011, the CalPERS Board of Administration approved three asset allocation strategies. These three strategies allow employers to match the level of funding risk to the characteristics of their OPEB plan. This asset allocation policy mix is effective for OPEB cost reports (actuarial valuations and Alternative Measurement Method reports) dated after June 15, 2011. The chart below shows the three asset allocation strategies.

ASSET CLASSIFICATION	ASSET ALLOCATION 1	ASSET ALLOCATION 2	ASSET ALLOCATION 3
GLOBAL EQUITY	66.0%	50.1%	31.6%
U.S. NOMINAL BONDS	18.0%	23.9%	42.4%
GLOBAL REAL ESTATE	8.0%	8.0%	8.0%
INFLATION LINKED BONDS	5.0%	15.0%	15.0%
COMMODITIES	3.0%	3.0%	3.0%
TOTALS	100.0%	100.0%	100.0%

THINGS TO CONSIDER WHEN CONTRACTING FOR, OR AMENDING YOUR CalPERS DB PLAN

When employers are considering contracting for the CalPERS DB Plan or amending their current plan, we recommend that the agency consider the following:

- *Your Objective* – Why are you interested in providing retirement benefits? Do you want a tool that promotes recruitment and retention efforts? Do you want a retirement plan that can provide incentives for encouraging employee attrition during difficult periods? Do you want the plan to be the primary income replacement vehicle in retirement? If your answer to any of these questions is yes, you may want to consider the CalPERS Defined Benefit Plan.
- *Cost* – Request an actuarial valuation to identify the cost of the plan. Pay close attention to optional benefits which may increase your cost.
- *Intended Income Replacement Level* – Generally, experts recommend an income replacement level of 70 to 90 percent of income depending on various factors including benefit coordination with Social Security, income level, age and marital status.[4]

Note: Both State and public agency benefit formula and other contract option amendments generally occur as a result of the collective bargaining process between represented employee groups and the employer.

Government Finance Officers Association (GFOA) Recommended Considerations[5]

CalPERS supports some key GFOA recommendations on essential design elements that pension administrators and finance professionals should consider. Some applicable GFOA recommendations are outlined below.

1. Key plan design considerations should include:

    - The desired amount of the benefits to be provided by the plan. This may be identified as the intended income replacement level in retirement. Consideration may include future purchasing power retention for retirees through the use of other post retirement benefit adjustments, such as cost of living adjustments (COLAs).
    - Components of the formula to achieve desired benefits (benefit percentage, years of service and final average compensation).

2. Funding considerations. Funding sustainability is vital to the functioning of a DB plan. A plan must be funded in a sustainable manner to ensure its long-term viability and fiscal integrity. Plan sponsors should consider the following:

[4] Almeida, B., Fornia, W.B., *A Better Bang for the Buck*, National Institute on Retirement Security, August 2008

[5] Government Finance Officers Association*, Best Practice: Essential Design Elements of Defined Benefit Retirement Plans (2008)(COBRA),* February 22, 2008

- Understand the key components associated with the cost of the plan, which are determined through actuarial analysis.
- Ensure manageable funding mechanisms are in place to meet the desired benefit levels. Determine the cost-sharing strategy between the employer and employees, specifically if employee contributions will be participatory. Investment returns on pension fund assets are also an important part of the funding structure.
- Have all benefit enhancements actuarially valued before they can be approved in order to ensure a complete understanding of their long-term financial impacts.

Suggested Questions

As an elected official, below are some questions you may want to ask management about a new defined benefit plan or a current defined benefit plan.

1. What is the typical pension benefit a career employee will receive from the pension plan? What percentage of income does this replace?

2. Are our employees covered by Social Security? If so, what percentage of income will the combined total of retirement benefit and social security benefit replace?

3. What percentage of salary do employees pay toward their pension benefits?

4. How much do we pay toward pension benefits? What percentage of salary is this?

5. How do the retirement benefits we provide our employees compare with the retirement benefits other public employers provide their employees?

6. How well funded is our plan?

7. How much can alternative plan designs, such as second tier, reduce our costs now and in the future?

Contracting for, or Amending CalPERS DB Plan Benefits and Employer Responsibilities

Contracting or Amending Benefits

A potential CalPERS contracting employer must be a public agency as defined by the California Public Employees' Retirement Law (PERL) which states:
"'Public agency' means any city, county, district, other local authority or public body of or within this state."

Agencies can provide retirement benefits for two general categories, Miscellaneous and Safety. Contracts vary depending upon the member categories covered, the formula the agency elects to provide, and the optional benefit provisions selected from the group of approximately 50 benefits. These optional benefits may be provided at the time the original contract is established or they may be added later through the contract amendment process.

If an agency is eligible to contract with CalPERS, they can contact us to obtain an initial packet that includes an Agency Questionnaire, Optional Benefits Listings, Summary of Major Provisions, and copies of applicable benefits and publications. If they choose to contract with CalPERS for retirement benefits, an actuarial valuation, or cost analysis, is completed based on the benefits they have selected. The contract process takes several months to complete, and the cost of the plan to the agency is a percentage of the total member payroll as determined by the actuarial valuation. In addition, there are administrative fees for initially contracting and prior service calculations. There is also a fee for the actuarial valuation.

Public agencies may include various contract options in their retirement plan or plans. They may have a miscellaneous plan for employees who are not in a hazardous occupation, and one or more safety plans for police, firefighters, peace officers, and other safety employees.

Statutes require some features of public agency plans; others are optional. For example, a public agency must decide which of several possible service retirement formulas to provide.

The agency must also select whether to:

- Calculate retirement benefits using the highest one or three years of compensation
- Provide service credit for unused sick leave
- Permit employees to purchase various military or other forms of service credit
- Permit industrial disability retirement for miscellaneous members
- Offer the maximum cost of living adjustment

The agency must also determine the amount of the lump sum death benefit for retired members and the level of benefits to provide to survivors of employees not covered by Social Security.

Most CalPERS employers are in a “risk pool.” Risk pooling consists of pooling assets and liabilities across employers to produce large risk-sharing pools that will dramatically reduce or eliminate the large fluctuations in the employer’s contribution rate caused by unexpected demographic events. The CalPERS Board is authorized to create risk pools for public agencies and mandate participation for all plans with less than 100 active members. Plans are assigned to risk pools based on their service retirement formula.

Each pool is required by statute to contain the following benefits:

- Credit for Unused Sick Leave
- Public Service Credit for Periods of Layoffs
- Public Service Credit for Peace Corps or AmeriCorps: VISTA Service
- Public Service Credit for Service Rendered to a Nonprofit Corporation
- Military Service Credit as Public Service
- Military Service Credit for Retired Persons
- Local System Service Credit Included in Basic Death Benefit
- Pre-Retirement Option 2W Death Benefit

All other optional benefits are available to employers participating in risk pools. Optional benefits are allowed to vary within the same pool, but an employer contracting for a more expensive optional benefit will be required to pay a surcharge in addition to the pool’s rate.

Some additional optional benefits include, but are not limited to:

- Credit for Local Retirement System Service After Contract Date
- Two Years Additional Service Credit
- Public Service Credit for Periods of Layoff
- Employees Sharing Cost of Additional Benefits
- Post-Retirement Survivor Allowance
- Optional Membership for Part-Time Employees

Changes to contracting public agency benefits involve certain requirements which include, among other things, making changes public before the agency establishes or amends their contract with CalPERS through a public vote of their governing board. Benefit formula and other contract option changes generally occur as a result of the collective bargaining process between employee groups and the employer. A change in employee contribution rates must be approved by employees during a secret ballot election. Amendments that impair the vested rights of employees, such as a reduction in benefits without a concurrent comparable improvement in other benefits, are not permitted. CalPERS provides an estimated cost of contract amendments or benefit formula changes to employers that are considering changes.

EMPLOYER RESPONSIBILITIES

Once an agency has entered into a contract for retirement benefits with CalPERS, they have a number of responsibilities to fulfill, such as:

- Enroll eligible employees timely upon qualification for membership, follow membership rules and maintain changes to employment status throughout each employee’s career.
- Report compensation and contributions accurately and timely, and provide payment to CalPERS promptly.
- Be transparent, and be knowledgeable of the contract and changes in the laws that may affect your contract. For example, you should be aware that you are required to make salary schedules publicly available.
- Comply with all of the provisions of the California Public Employees’ Retirement Law (PERL). Every employer receives a copy of the PERL from CalPERS each year as it is updated.

CalPERS routinely conducts employer reviews to ensure that our contracting employers are in compliance with their responsibilities. Failure to comply with any of the employer responsibilities can result in administrative fees charged to the employer. Extended failure to comply with employer responsibilities can result in termination of the contract between CalPERS and the agency, and can affect employees’ benefits.

Contracting for Other Benefits

Health Benefits

The Public Employees' Medical and Hospital Care Act (PEMHCA) mandates the CalPERS Health benefits program. To contract for the CalPERS health benefits program, employers are required to meet eligibility criteria established by PEMHCA. The agency must meet the definition of a qualified employer. Eligible employers include cities, counties, school districts, and special districts. The employer must provide a retirement system for employees funded wholly or in part by public funds to which the employer makes contributions on behalf of the employee. In addition, the employer must offer all eligible active and retired employees the opportunity to enroll in the CalPERS Health Benefits Program and provide an employer contribution toward health benefits for both active and retired employees.

For information on how to contract for benefits, go to the employer section of the CalPERS website at www.calpers.ca.gov or call (916)795-1233.

CalPERS Supplemental Income 457 Plan

The CalPERS Supplemental Income 457 Plan is open to all California public agencies and school districts. To adopt the plan, public agencies and schools may visit the Plan Employer web site at www.calpers-sip.com, to obtain a CalPERS 457 Plan Adoption Kit; or contact the CalPERS 457 Plan Employer Information Line toll-free (800) 696-3907.

California Employers' Retiree Benefit Trust Fund (CERBT)

The California Employers' Retiree Benefit Trust (CERBT) Fund is open to all California government employers. The CERBT services include: investment management, low cost, compliant GASB 45 reporting, and simple administrative procedures. To obtain more information on contracting for the program, please visit the employer section of the CalPERS website at www.calpers.ca.gov under the employer tab, click on *Employer Information*, then *GASB 45 and the California Employers' Retiree Benefit Trust Fund.*

For assistance with the contracting process and submission requirements, or to request forms and instructions by mail, send an email to CORE4U@calpers.ca.gov or contact the CalPERS Employer Contact Center toll-free at 888 CalPERS (or 888-225-7377).

CONTACT CalPERS

Contact us online: www.calpers.ca.gov
CalPERS Phone Numbers

You can reach us at the phone numbers shown below, Monday through Friday, 8:00 a.m. to 5:00 p.m. (CalPERS offices are closed on State and federal holidays.)

BUSINESS AREA	PHONE NUMBERS
CalPERS CUSTOMER CONTACT CENTER	**888 CalPERS** (or **888**-225-7377) TTY: (916) 795-3240
CalPERS BOARD OF ADMINISTRATION	(916) 795-3829
CalPERS EXECUTIVE STAFF	(916) 795-3829
CalPERS SUPPLEMENTAL INCOME 457 PLAN	
CUSTOMER SERVICE	(800) 260-0659
EMPLOYER SERVICE	(800) 696-3907
CalPERS LONG-TERM CARE PROGRAM	
CUSTOMER SERVICE	(800) 982-1775
EMPLOYER SERVICE	(800) 845-8427
PERSCARE / PERS CHOICE HEALTH PLANS	(877) 737-7776
JUDGES', JUDGES' II & LEGISLATORS' RETIREMENT SYSTEMS	(916) 795-3688
CalPERS SUPPLEMENTAL CONTRIBUTIONS PLAN	(877) 564-2022
STATE PEACE OFFICERS' & FIREFIGHTERS' (POFF) SUPPLEMENTAL PLAN	(888) 600-POFF(7633)